

### **Remarks**

Claims 1-16 are pending in the application, and each was rejected. By this paper, claims 1 and 9-16 are amended. Based on the following, consideration of the amended claims, and reconsideration of the remaining claims, are requested.

### **Examiner Interview**

Applicants thank the Examiner for the telephonic interview conducted on June 22, 2005. Applicants inquired whether an English language translation was available for the German Gebrauchsmuster reference (G8406019.0). The Examiner indicated that an English language translation was not available, and that the rejections based on this reference were based on an oral translation. Applicants then discussed with the Examiner the patentability of claim 1, including a suggested amendment. No agreement was reached as to the patentability of any of the claims; the interview was then concluded.

### **Specification**

The Examiner objected to the Abstract of the Disclosure, stating that it did not describe the invention as claimed. By this paper, the Abstract of the Disclosure is amended, and Applicants believe it accords with all requirements for an abstract. Moreover, the Title of the Invention is also amended to more particularly describe the invention as claimed.

The Examiner also objected to the specification because the reference to the parent case had not been updated to include the patent number of the parent case. By this paper, the specification is amended to include the patent number of the parent case. Applicants submit that the specification as amended meets all requirements, and respectfully request that the objections be withdrawn.

**Claim Rejections—35 U.S.C. § 112**

The Examiner rejected claims 1-16 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. In particular, the Examiner stated that it was unclear where the limitation pertaining to absence of adhesive material was taught. Further, the Examiner stated that it was unclear how the original specification and claims would otherwise convey to one of "reasonable skill in the art" that the Applicant was in possession of the invention at the time of filing.

As discussed more fully below with regard to the § 102 rejections, claim 1 is, by this paper, amended to more particularly point out and distinctly claim the subject matter of the invention. In particular, amended claim 1 recites a coated composite cylinder that includes a bond between a metal casing and composite material "based on compression and non-compression adhesion without the addition of a separate adhesive material." Applicants point to, for example, page 3 of the specification at lines 12-16, which discusses drawing a metallic casing over a composite material having an uncured matrix. The specification states that this process leads to a "bond [that] is also based on adhesion, not just the compression of a coating layer and friction resulting therefrom." It is clear from this language, that the "adhesion" referred to is "non-compression" adhesion, resulting from the application of the metallic casing over an uncured matrix. In addition, the specification at page 3, lines 24-27, discusses the use of an adhesive for another embodiment, and then contrasts this cylinder with one being drawn in an uncured state which is described on page 4 at lines 2-5. Therefore, Applicants submit that claim 1 as originally submitted was supported by the specification as filed, and that amended claim 1 is also fully supported. Moreover, such description, taken with the remainder of the specification, is enabling within the meaning of § 112, first paragraph.

The Examiner rejected claims 10-16 under 35 U.S.C. § 112, second paragraph as being indefinite. By this paper, claims 10-16 are amended to recite "the machine" in the

preamble, relating directly back to base claim 9. Applicants submit that each of the pending claims complies with § 112, and respectfully requests that these rejections be withdrawn.

**Claim Rejections—35 U.S.C. § 102**

The Examiner rejected claims 1-3, 5, 7 and 8 under 35 U.S.C. § 102(b) as being anticipated by G8406019.0. The Examiner states that "[t]he reference teaches a carbon fiber composite roll that is coated with copper and then coated with chromium." The Examiner does not state, however, that the reference expressly or inherently describes other elements of claim 1—for example, a coated composite cylinder having a metal casing bonded to a composite cylinder where the bond is based on compression and non-compression adhesion, as specifically recited in amended claim 1. Therefore, there has been no showing that the reference expressly or inherently describes each and every element of amended claim 1, which is specifically required by the MPEP to show anticipation. MPEP § 2131, 8<sup>th</sup> ed., Rev. 2. Amended claim 1 is the base claim for claims 2, 3, 5, 7 and 8. Each of these dependent claims contains all of the limitations of amended claim 1, as well as additional limitations which further distinguish it from the cited reference. Therefore, Applicants submit that the Gebrauchsmuster reference, G8406019.0, does not anticipate any of claims 1-3, 5, 7 or 8.

The Examiner rejected claims 1, 2, 5, 7 and 8 under 35 U.S.C. § 102(b) as being anticipated by EP0461253 (Hashimoto). As noted above, amended claim 1 recites a coated composite cylinder having a metal casing bonded to a composite material where the bond is based on compression and non-compression adhesion. In contrast, Hashimoto describes a rod member of fiber-reinforced resin material having a soft metal layer formed thereon. The forming takes place such that the soft metal adheres "under pressure to the outer periphery [of the rod]." (Col. 2, ll. 31-40.) Hashimoto further states that "[i]t is further preferable that the outer periphery of the soft metal layer is mechanically polished after it has been *formed on the outer surface of the rod member by pressure adhesion...*" (emphasis added). (Col. 3, ll. 7-10.) Therefore, although Hashimoto describes a compression bond, it

does not describe a non-compression adhesion bond in addition to the compression bond, as specifically recited in amended claim 1 of the present application.

Amended claim 1 is the base claim for claims 2, 5, 7 and 8; therefore, each of these dependent claims contains all of the limitations of amended claim 1 as well as additional limitations which further distinguish it from the cited reference. Therefore, claims 1, 2, 5, 7 and 8 each contain elements which are neither expressly nor inherently described in Hashimoto, and the MPEP definition of anticipation is not met.

### **Claim Rejections—35 U.S.C. § 103**

The Examiner rejected claim 3 under 35 U.S.C. § 103(a) as being unpatentable over Hashimoto. The Examiner also rejected claims 9-13, 15 and 16 under 35 U.S.C. § 103(a) as being unpatentable over G8406019.0.

With regard to claim 3, this dependent claim depends directly from amended claim 1, which, in addition to having elements which are neither expressly nor inherently described by Hashimoto, also contains limitations which are neither taught nor suggested by Hashimoto. Hashimoto discusses the use of pressure to adhere a metal coating to a fiber-reinforced resin rod, but does not even suggest the use of a non-compression adhesive bond formed without the use of a separate adhesive material. Thus, the MPEP requirements for a showing of *prima facie* obviousness are not met.

By this paper, claim 9 is amended to more particularly point out and distinctly claim the subject matter of the invention. In particular, claim 9 recites a machine for making paper which includes a coated composite cylinder. The cylinder includes a metal casing on a composite cylinder where the bond between the metal casing and the composite cylinder is "based on compression and non-compression adhesion without the addition of a separate adhesive material." As discussed above with regard to the rejections of claim 1, there has been no showing that G8406019.0 expressly or inherently describes such elements. Relying on the

oral translation of G8406019.0, the Examiner states that the reference "teaches a carbon fiber composite roll that is coated with copper and then coated with chromium." The Examiner does not, however, state that the reference teaches a bond between the metal coating and the composite roll that is based on compression and non-compression adhesion, without the addition of a separate adhesive material, as specifically recited in amended claim 9 of the present application. Because amended claim 9 is the base claim for claims 10-13, 15 and 16, each of these claims contains all of the limitations of amended claim 9, as well as additional limitations which further distinguish it from the cited reference. It is respectfully submitted that the Examiner has not shown that the cited reference teaches or suggests all of the limitations of any of these claims, and as a result, the MPEP requirements for a showing of *prima facie* obviousness are not met.

Accordingly, allowance of each of the pending claims is requested.

Respectfully submitted,

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